

Drmd

JUN ZOO

Patentanwälte - European Patent Attorneys

European Trade Mark Attorneys

Hans-Martin Viering, Dipl.-Ing.

Rolf Jentschura, Dipl.-Ing.

Alexander Schlee, Dipl.-Ing.

Dr. Matthias Nobbe, Dipl.-Chem.

Adam Bogsch, Dipl.-Ing.

Armin Kühn, Dipl.-Ing.

Eric Dokter, Dipl.-Ing.

\*\*

Eric Dokter, Dipl.-Ing.

\*\*

Dr. Wolfram Schiweck, Dipl.-Ing. (Chem.)

Rechtsanwälte - Attorneys At Law Dr. Wolfgang Festi-Wietek \*

Dr. Dirk Halbig, Dipl.-Chem \*

Dr. Hartmut Frank, Dipl-Phys. \*\*\*

Partnerschaftsregister München PR97

Viering, Jentschura & Partner P.O. Box 221443 D-80504 München Deutschland

Pascal Rath \*

Ihr Zeichen/Your ref.:

Europäisches Patentamt

Erhardtstraße 27

80298 München

Unser Zeichen/Our file: P23795

Bearbeiter: Sd/Ws

Datum/Date: 18.03.2004

International Patent Application PCT/EP03/14542
"Novel Chimeric Plasminogen Activators and Their Pharmaceutical Use"
Appl.: Prof. Dr. Werner Seeger

## In reply to the Communication dated February 20, 2004,

an amended sequence listing is filed herewith in written form as well as in computer-readable from (ASCII format; file name: 23795\_seq.txt) saved on the enclosed diskette.

The amended sequence listing does not go beyond the disclosure in the application as filed. It now includes the pure amino acid sequences of SEQ ID NOs 1 to 13, which are referred to as SEQ ID NOs 14 to 26, respectively.

Encl.
Sequence listing, paper copy
Diskette

Hans-Martin Viering
Patentanwalt

M UN CHEN\*
Steinsdorfstr. 6
80538 München
Deutschland
Telefon: +49-89-2106970
Telefax: +49-89-21069757

E-Mail: vjp-mu@vjp.de ...

X;: .

OBERHAUSEN\*\*
Centroallee 263
46047 Oberhausen
Deutschland
Telefon: +49-208-810890

Deutschland
Telefon: +49-208-810890
Telefax: +49-208-2055542
E-Mail: vjp-ob@vjp.de

DRESDEN\*\*\*
Schwepnitzer Str. 2
01097 Dresden
Deutschland

Telefon: +49-351-656830 Telefax: +49-351-6568357 E-Mail: vjp-dd@vjp.de SINGAPORE 210 Middle Road #09-07/08 IOI Plaza Singapore 188994 Phone: +65-6334941

Singapore 188994
Phone: +65-63349411
Fax: +65-62384402
E-Mail: vjp-sg@vjp.de

LOS ANGELES 3770 Highland Ave. Suite 203 Manhattan Beach CA 90266, USA

CA 90266, USA
Phone: +1-310-5459851
Fax: +1-310-5459853
E-Mail: vjp-la@vjp.de

# IAP20 Rec'd PCT/PTO 19 JUN 2006

### SEQUENCE LISTING

•							•									
<12		ove1		Wern meri		_		n act	tiva:	tors	and	the	ir pl	narma	aceutical	use
<21 <21	2> D	143 NA	sapi	ens							-	٠		·		
<22	1> C 2> (	1) .	·	1143 quend		E the	e sui	cfact	cant	prot	ein	Вр	recui	rsor		
<40	0> 1															
	_			cac His 5	_	<del>-</del>	_		_	_	_	_	<del>-</del>		<del>-</del>	48
				ggc									-	Ala		96
			Pro	gag Glu						=						144
		_		Gly									_			192
				tgc Cys												240
				gag Glu 85												288
		Glu		aac Asn								-		-		336
	_			gac Asp	_				_	•		_			_	384
				tca Ser				-	_			-	•	<del>-</del>		432
	Arg			gag Glu												<b>480</b>
CCC	aaa	cct	ctg	cgg	gac	cct	ctg	cca	gac	cct	ctg	ctg	gac	aag	ctc	528

Pro	Lys	Pro	Leu	Arg 165	Pro	Leu	Pro	Asp 170	Pro	Leu	Leu	Asp	Lys 175	Leu		
		cct Pro														576
		gat Asp 195														624
		tgc Cys														672
		cta Leu														720
		ggc Gly														768
		gac Asp														816
ctc Leu																864
aca Thr		gaa Glu			Arg											912
		acc Thr														960
		cag Gln														1008
		gtg Val														1056
	Trp	gat Asp 355			Thr											1104
Met		agc Ser										·			<u>.</u> .	1143

<210> 2 <211> 837 <212> DNA

#### <213> Homo sapiens

<21	3> H	omo	sapi	ens													
<22 <22	1> C 2> ( 3> C	1) . odin	( g se opep	quen		of th	ie si	urfad	etant	pro	otei	n B	prec	urso	r lad	cking	the (
<40	0> 2																
					ctg Leu					Leu							48
				Gly	act Thr											•	96
			Pro		ttc Phe												144
		Ala			cat His										gga Gly		192
					caa Gln 70												240
					gcc Ala												288
					gtc Val												336
					gac Asp												384
					aac Asn												432
					cca Pro 150												480
					gạc Asp				_		_		_	- <del>-</del> -			528
_					ccc												576

Val Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His

aca cag gat ctc tcc gag cag caa ttc ccc att cct ctc ccc tat tgc

185

180

	Gln	Asp 195	Leu	Ser	Glu	Gln	Gln 200	Phe	Pro	Ile	Pro	Leu 205	Pro	Tyr	Cys	
		Cys	agg Arg													672
	Ala		gct Ala												ctg Leu 240	720
			ggc Gly												atc Ile	768
			acg Thr 260													816
		Leu	cgg Arg											·		837
<210 <211 <212 <213 <220 <221 <222 <223	L> 23 2> DN 3> Ho 0> L> CI 2> (1 3> Co	JA omo s os .)	. (2	37)	e of	the	e mat	ure	surf	acta	int p	rote	in E	<b>1</b>		
ttc Phe 1			cct Pro													48
cgg Arg																96
cag	_															144
ctg Leu																192
		CCC														

<212> DNA <213> Homo sapiens <220> <221> CDS <222> (1) ... (1293) <223> Coding sequence of the single-chain urokinase-plasminogen activator <400> 4 atg aga gcc ctg ctg gcg cgc ctg ctt ctc tgc gtc ctg gtc gtg agc Met Arg Ala Leu Leu Ala Arg Leu Leu Cys Val Leu Val Val Ser gac tcc aaa ggc agc aat gaa ctt cat caa gtt cca tcg aac tgt gac Asp Ser Lys Gly Ser Asn Glu Leu His Gln Val Pro Ser Asn Cys Asp tgt cta aat gga gga aca tgt gtg tcc aac aag tac ttc tcc aac att Cys Leu Asn Gly Gly Thr Cys Val Ser Asn Lys Tyr Phe Ser Asn Ile cac tgg tgc aac tgc cca aag aaa ttc gga ggg cag cac tgt gaa ata His Trp Cys Asn Cys Pro Lys Lys Phe Gly Gly Gln His Cys Glu Ile gat aag tca aaa acc tgc tat gag ggg aat ggt cac ttt tac cga gga Asp Lys Ser Lys Thr Cys Tyr Glu Gly Asn Gly His Phe Tyr Arg Gly aag gcc agc act gac acc atg ggc cgg ccc tgc ctg ccc tgg aac tct Lys Ala Ser Thr Asp Thr Met Gly Arg Pro Cys Leu Pro Trp Asn Ser gcc act gtc ctt cag caa acg tac cat gcc cac aga tct gat gct ctt Ala Thr Val Leu Gln Gln Thr Tyr His Ala His Arg Ser Asp Ala Leu cag ctg ggc ctg ggg aaa cat aat tac tgc agg aac cca gac aac cgg Gln Leu Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro Asp Asn Arg agg cga ccc tgg tgc tat gtg cag gtg ggc cta aag ccg ctt gtc caa Arg Arg Pro Trp Cys Tyr Val Gln Val Gly Leu Lys Pro Leu Val Gln gag tgc atg gtg cat gac tgc gca gat gga aaa aag ccc tcc tct cct Glu Cys Met Val His Asp Cys Ala Asp Gly Lys Lys Pro Ser Ser Pro cca gaa gaa tta aaa ttt cag tgt ggc caa aag act ctg agg ccc cgc Pro Glu Glu Leu Lys Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg ttt aag att att ggg gga gaa ttc acc acc atc gag aac cag ccc tgg Phe Lys Ile Ile Gly Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp ttt gcg gcc atc tac agg agg cac cgg ggg ggc tct gtc acc tac gtg 

	D	ha	δla	λ1 =	. Tl	. Лъг⊶	· 3 ~~~	· »		7		. 01		T	-1	_	7	•
	•			195		: IYI	Ary	Arg	200		g GTA	GIA	ser	205		. lār	· Val	
	t C	gt ys	gga Gly 210	Gly	ago Ser	ctc Leu	atc Ile	agc Ser 215	Pro	tgc Cys	tgg Trp	gtg Val	atc Ile 220	Ser	gcc Ala	aca Thr	cac His	672
	C;	gc ys 25	ttc Phe	att	gat Asp	tac Tyr	cca Pro 230	Lys	aag Lys	gag Glu	gac Asp	tac Tyr 235	Ile	gtc Val	tac Tyr	ctg Leu	ggt Gly 240	720
· · · · . · · ·	C(	gc	tca Ser	agg Arg	ctt Leu	aac Asn 245	Ser	aac Asn	acg Thr	caa Gln	ggg Gly 250	Glu	atg Meț	aag Lys	ttt Phe	gag Glu 255		768
	ga G	aa lu	aac Asn	ctc Leu	atc Ile 260	Leu	cac His	aag Lys	gac Asp	tac Tyr 265	agc Ser	gct Ala	gac Asp	acg Thr	ctt Leu 270	Ala	cac His	816
	· Ca Hi	is	aac Asn	gac Asp 275	Ile	gcc Ala	ttg Leu	ctg Leu	aag Lys 280	atc Ile	cgt Arg	tcc Ser	aag Lys	gag Glu 285	ggc Gly	agg Arg	tgt Cys	864
	go A]	.a	cag Gln 290	cca Pro	tcc Ser	cgg Arg	act Thr	ata Ile 295	cag Gln	acc Thr	atc Ile	tgc Cys	ctg Leu 300	ccc Pro	tcg Ser	atg Met	tat Tyr	912
	.aa .As	n	gat Asp	ccc Pro	cag Gln	ttt	ggc Gly 310	aca Thr	agc Ser	tgt Cys	gag Glu	atc Ile 315	act Thr	ggc Gly	ttt Phe	gga Gly	aaa Lys 320	960
	ga Gl	g u	aat Asn	tct Ser	acc Thr	gac Asp 325	tat Tyr	ctc Leu	tat Tyr	ccg Pro	gag Glu 330	cag Gln	ctg Leu	aaa Lys	atg Met	act Thr 335	gtt Val	1008
	gt Va	g 1 :	aag Lys	ctg Leu	att Ile 340	tcc Ser	cac His	cgg Arg	gag Glu	tgt Cys 345	cag Gln	cag Gln	ccc Pro	cac	tac Tyr 350	tac Tyr	ggc Gly	1056
	tc Se	t (	Glu	gtc Val 355	Thr	acc Thr	aaa Lys	atg Met	ctg Leu 360	Cys	gct Ala	Ala	gac Asp	Pro	cag Gln	tgg Trp	aaa Lys	1104
	ac Th	r I	gat Asp 370	tcc Ser	tgc Cys	cag Gln	gga Gly	gac Asp 375	tca Ser	Gly ggg	gga Gly	ccc Pro	ctc Leu 380	gtc Val	tgt Cys	tcc Ser	ctc Leu	1152
•	ca Gl 38	n (	Gly Gly	cgc Arg	atg Met	act Thr	ttg Leu 390	act Thr	gga Gly	att Ile	gtg Val	agc Ser 395	tgg Trp	ggc Gly	cgt Arg	gga Gly	tgt Cys 400	1200
	gc	c c	ctg Leu	aag Lys	Asp	aag Lys 405	cca Pro	ggc	gtc Val	tac Tyr	acg Thr 410	aga Arg	gtc Val	tca Ser	cac His	ttc Phe 415	tta Leu	1248
	Pro	c t	rp	Ile	cgc Arg 420	agt Ser	cac His	acc Thr	Lys	gaa Glu 425	gag Gln	aat Asn	ggc	Leu	gcc Ala 430	ctc Leu		1293

<210> 5 <211> 828 <212> DNA <213> Homo sapiens <220> <221> CDS <222> (1) ... (828) <223> Coding sequence of the low molecular weight two-chain urokinaseplasminogen activator <400> 5 aag ccc tcc tct cca gaa gaa tta aaa ttt cag tgt ggc caa aag 48 Lys Pro Ser Ser Pro Pro Glu Glu Leu Lys Phe Gln Cys Gly Gln Lys 1 5 10 15 act ctg agg ccc cgc ttt aag att att ggg gga gaa ttc acc acc atc 96 Thr Leu Arg Pro Arg Phe Lys Ile Ile Gly Gly Glu Phe Thr Thr Ile 20 **25**: 30 gag aac cag ccc tgg ttt gcg gcc atc tac agg agg cac cgg ggg ggc 144 Glu Asn Gln Pro Trp Phe Ala Ala Ile Tyr Arg Arg His Arg Gly Gly 35 40 45 tet gte ace tae gtg tgt gga gge age etc ate age eet tge tgg gtg 192 Ser Val Thr Tyr Val Cys Gly Gly Ser Leu Ile Ser Pro Cys Trp Val 50 55 60 atc agc gcc aca cac tgc ttc att gat tac cca aag aag gag gac tac 240 Ile Ser Ala Thr His Cys Phe Ile Asp Tyr Pro Lys Lys Glu Asp Tyr 65 70 75 80 atc gtc tac ctg ggt cgc tca agg ctt aac tcc aac acg caa ggg gag 288 Ile Val Tyr Leu Gly Arg Ser Arg Leu Asn Ser Asn Thr Gln Gly Glu 85 90 95 atg aag ttt gag gtg gaa aac ctc atc cta cac aag gac tac agc gct 336 Met Lys Phe Glu Val Glu Asn Leu Ile Leu His Lys Asp Tyr Ser Ala . 105 100 110 gac acg ctt gct cac cac aac gac att gcc ttg ctg aag atc cgt tcc 384 Asp Thr Leu Ala His His Asn Asp Ile Ala Leu Leu Lys Ile Arg Ser 115 120 125 aag gag ggc agg tgt gcg cag cca tcc cgg act ata cag acc atc tgc 432 Lys Glu Gly Arg Cys Ala Gln Pro Ser Arg Thr Ile Gln Thr Ile Cys 130 135 140 ctg ccc tcg atg tat aac gat ccc cag ttt ggc aca agc tgt gag atc 480 Leu Pro Ser Met Tyr Asn Asp Pro Gln Phe Gly Thr Ser Cys Glu Ile 145 150 160 155 act ggc ttt gga aaa gag aat tct acc gac tat ctc tat ccg gag cag 528 . Thr Gly Phe Gly Lys Glu Asn Ser Thr Asp Tyr Leu Tyr Pro Glu Gln 165 175 170 ctg aaa atg act gtt gtg aag ctg att tcc cac cgg gag tgt cag cag

	Leu	Lys	Met	Thr 180	Val	Val	Lys	Leu	Ile 185	Ser	His	Arg	Glu	Cys 190	Gln	Gln		
													ctg Leu 205					624
													tca Ser			ccc · Pro		672
													gga Gly					720
													gtc Val					768
													aag Lys					816
	Gly	_	gcc Ala 275										·					828
•	<212<213	> 16 > DN > Ar > CD > (1 > Co	tifi S )	. (8 seq	37) uenc	uenc		e su	rfac	tant	pro	tein	Вр	orecu	rsoi	: lack	ing t	he C-
4	<220 <221 <222 <223	> > CD > (8 > Co	44)	 sec	(167 quenc	ce c	of t	he `	low	mole	ecula	ar v	veigh	it t	wo-c	hain	uroki	.nase-
. <	<400	> 6																
													ctg Leu					48
													tcc Ser			<del>-</del>		<b>96</b>
													caa Gln 45					144

		Ala		tgc Cys 55	Leu						192
	Asp			gag Glu							240
				att Ile							288
				ctċ Leu							336
	_			tac Tyr							384
-				ggc Gly 135							432
-				gag Glu							480
				cct Pro							528
				Gly							576
				cag Gln							624
				atc Ile 215				 _		_	672
				gtg Val							720
				cag Gln		Leu					768
		Asp		ggc							816
	Val			atg Met							864

					tgt Cys								9	12	
· ·					ttc Phe 310								9	60	•
	_	_			cac His			_			_		1	800	
•					cct Pro								1	056	
		Asp			aag Lys	_		_					1	104	
					acg Thr								1	152	
		_		_	gac Asp 390								1	200	
• • •					aag Lys								1	248	:
•					cag Gln								1	296	
7.3		Gln			agc Ser								1	344	
	Ser				tat Tyr					-			1	392	
			_		gag Glu 470								1	440	
					ctg Leu								1	488	
					tca Ser								1	536 .	
					gga Gly								1	584	
	•••	14.,			 	·		•				•			

aag gac aag cca ggc gtc tac acg aga gtc tca cac ttc tta ccc tgg Lys Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu Pro Trp 530 535 540	1632
atc cgc agt cac acc aag gaa gag aat ggc ctg gcc ctc Ile Arg Ser His Thr Lys Glu Gln Asn Gly Leu Ala Leu 545 550 555	1671
<210> 7 <211> 1674 <212> DNA <213> Artificial Sequence	
<220> <221> CDS <222> (1) (837) <223> Coding sequence of the surfactant protein B precursor lacking terminal propeptide	ng the C-
<220> <221> CDS <222> (847) (1674) <223> Coding sequence of the low molecular weight two-chain uplasminogen activator	rokinase-
<400> 7	
atg gct gag tca cac ctg ctg cag tgg ctg ctg ctg ctg ctg ccc acg Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr 1 5 10 15	48
ctc tgt ggc cca ggc act gct gcc tgg acc acc tca tcc ttg gcc tgt Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys 20 25 30	96
gcc cag ggc cct gag ttc tgg tgc caa agc ctg gag caa gca ttg cag Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln 35 40 45	144
tgc aga gcc cta ggg cat tgc cta cag gaa gtc tgg gga cat gtg gga Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly 50 55 60	192
gcc gat gac cta tgc caa gag tgt gag gac atc gtc cac atc ctt aac Ala Asp Asp Leu Cys Glu Cys Glu Asp Ile Val His Ile Leu Asn 65 70 75 80	240
aag atg gcc aag gac att ttc cag gac acg atg agg aag ttc ctg Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu 85 90 95	288
gag cag gag tgc aac gtc ctc ccc ttg aag ctg ctc atg ccc cag tgc Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys 100 105 110	336
aac caa gtg ctt gac gac tac ttc ccc ctg gtc atc gac tac ttc cag	384

	Asn	Gln	Val 115	Asp	Asp	Tyr	Phe 120	Pro	Leu	Val	Ile	Asp 125	Tyr	Phe	Gln		
		cag Gln 130	Thr									Gly					432
		Arg															480
	ccc Pro	aaa Lys															528·
•		ctc Leu															576
		cag Gln															624
	•	ctc Leu 210															672
•		gcg Ala															720
	gtg Val	gcg Ala															768
		ctc Leu															816
		gtc Val					Gln		Ser	Lys					•	-	864
		gaa Glu 290															912
		att Ile															960
		gcc Ala															1008
		ggc Gly														<b>.</b> •	1056

 _			cca Pro		-								_	1104
			tcc Ser										gaa Glu	1152
			cac His		-									1200
			ttg Leu 405						•					1248
			act Thr		_			•	_		_	_		1296
		_	ggc	_							_	_		1344
			tat Tyr			_		_	-		_			1392
	_		cac His											1440
			aaa Lys 485	_	<del>-</del>	_	_	-	-					1488
			gga Gly			_				_			_	1536
			ttg Leu								_	• -		1584
			cca Pro				_	-	•					1632
_			cac His											1674

<sup>&</sup>lt;210> 8

<sup>&</sup>lt;211> 591 <212> DNA <213> Homo sapiens

<22		1) .	(! g sed	· ·	ce of	E the	e sui	rfact	tant	prot	cein	C pı	recur	rsor		
<40	0> 8															
		_	_		aaa Lys											48
					ggc Gly	<del>-</del>					_	-				96
	•				atc											144
					ctg Leu		_				_	_	_			192
_	Glu		_	_	gag Glu 70	_	_						_	_	caa Gln 80	240
				-	gag Glu		_	_			_				_	288
					gtg Val			-		_	_	_	=			336
	_				ggc		_	_				_		<u> </u>	cca Pro	384
	_			_	ctt Leu		_			_		_			_	432
_		_			ctg Leu 150		-	•	•	_	Val					480
	_	_ *			GJÅ aaa	_	_				_				_	528
		_			ggc								_	_	_	576
_			tac Tyr	_									·			591

```
<210> 9
<211> 174
<212> DNA
<213> Homo sapiens
<220>
<221> CDS
<222> (1) ... (174)
<223> Coding sequence of the surfactant protein C precursor lacking the C-
terminal propeptide
<400> 9
                                                                         48
atg gat gtg ggc agc aaa gag gtc ctg atg gag agc ccg ccg gac tac
Met Asp Val Gly Ser Lys Glu Val Leu Met Glu Ser Pro Pro Asp Tyr
  1
                   5
                                      10
                                                          15
                                                                         96
tcc gca gct ccc cgg ggc cga ttt ggc att ccc tgc tgc cca gtg cac
Ser Ala Ala Pro Arg Gly Arg Phe Gly Ile Pro Cys Cys Pro Val His
              20
                                  25
                                                      30
ctg aaa cgc ctt ctt atc gtg gtg gtg gtg gtc ctc atc gtc gtg
                                                                         144
Leu Lys Arg Leu Leu Ile Val Val Val Val Val Leu Ile Val Val
         35
                              40
                                                  45
                                                                        174
gtg att gtg gga gcc ctg ctc atg ggt ctc
Val Ile Val Gly Ala Leu Leu Met Gly Leu
     50
                          55
<210> 10
<211> 105
<212> DNA
<213> Homo sapiens
<220>
<221> CDS
<222> (1) ... (105)
<223> Coding sequence of the mature surfactant protein C
<400> 10
                                                                         48
ttt ggc att ccc tgc tgc cca gtg cac ctg aaa cgc ctt ctt atc gtg
Phe Gly Ile Pro Cys Cys Pro Val His Leu Lys Arg Leu Leu Ile Val
<sup>;</sup> 1
                                                          15....
                                      10
gtg gtg gtg gtc ctc atc gtc gtg gtg att gtg gga gcc ctg ctc
                                                                         96
Val Val Val Val Leu Ile Val Val Ile Val Gly Ala Leu Leu
             20
                                                      30
                                  25
                                                                         105
atg ggt ctc
Met Gly Leu
         35
```

<210> 11

<211> 1686

<212> DNA

<213> Homo sapiens

<221> CDS <222> (1) ... (1686) <223> Coding sequence of the tissue-plasminogen activator <400> 11 atg gat gca atg aag aga ggg ctc tgc tgt gtg ctg ctg tgt gga Met Asp Ala Met Lys Arg Gly Leu Cys Cys Val Leu Leu Cys Gly gca gtc ttc gtt tcg ccc agc cag gaa atc cat gcc cga ttc aga aga Ala Val Phe Val Ser Pro Ser Gln Glu Ile His Ala Arg Phe Arg Arg gga gcc aga tct tac caa gtg atc tgc aga gat gaa aaa acg cag atg . Gly Ala Arg Ser Tyr Gln Val Ile Cys Arg Asp Glu Lys Thr Gln Met ata tac cag caa cat cag tca tgg ctg cgc cct gtg ctc aga agc aac Ile Tyr Gln Gln His Gln Ser Trp Leu Arg Pro Val Leu Arg Ser Asn cgg gtg gaa tat tgc tgg tgc aac agt ggc agg gca cag tgc cac tca Arg Val Glu Tyr Cys Trp Cys Asn Ser Gly Arg Ala Gln Cys His Ser ·65 gtg cct gtc aaa agt tgc agc gag cca agg tgt ttc aac ggg ggc acc Val Pro Val Lys Ser Cys Ser Glu Pro Arg Cys Phe Asn Gly Gly Thr tgc cag cag gcc ctg tac ttc tca gat ttc gtg tgc cag tgc ccc gaa Cys Gln Gln Ala Leu Tyr Phe Ser Asp Phe Val Cys Gln Cys Pro Glu gga ttt gct ggg aag tgc tgt gaa ata gat acc agg gcc acg tgc tac Gly Phe Ala Gly Lys Cys Cys Glu Ile Asp Thr Arg Ala Thr Cys Tyr gag gac cag ggc atc agc tac agg ggc acg tgg agc aca gcg gag agt Glu Asp Gln Gly Ile Ser Tyr Arg Gly Thr Trp Ser Thr Ala Glu Ser .130 ggc gcc gag tgc acc aac tgg aac agc agc gcg ttg gcc cag aag ccc Gly Ala Glu Cys Thr Asn Trp Asn Ser Ser Ala Leu Ala Gln Lys Pro tac age ggg egg agg eea gat gee ate agg etg gge etg ggg aac eac Tyr Ser Gly Arg Arg Pro Asp Ala Ile Arg Leu Gly Leu Gly Asn His aac tac tgc aga aac cca gat cga gac tca aag ccc tgg tgc tac gtc Asn Tyr Cys Arg Asn Pro Asp Arg Asp Ser Lys Pro Trp Cys Tyr Val ttt aag gcg ggg aag tac agc tca gag ttc tgc agc acc cct gcc tgc Phe Lys Ala Gly Lys Tyr Ser Ser Glu Phe Cys Ser Thr Pro Ala Cys

<220>

			Ala	cag				Val	gtc				Cys	ctt		1296	- ·
				Asn					Leu					Asp		1248	
														_	=	1200	
Thr	Val				Arg	Thr										1152	
		_		_												1104	
																1056	
																1008	
٠.													_		-	960	
																912	
																864	
				Leu												816	
									Thr							768	
					Thr	Glu										720	
	tcc ser cag Gln gat Asp gag Gly ctc Leu acg Thr cag Gln 385 gac Asp tcc	ggc acg Gly Thr 225  tcc atg Ser Met  cag gca Gln Ala  gat gcc Asp Ala  gag tac Glu Tyr 290  agc cag Ser Gln 305  tcc cac Ser His  gga gag Gly Glu  ctc tct Leu Ser  acg gtg Thr Val 370  cag aaa Gln Lys 385  gac act Asp Thr	tcc atg atc ser Met Ile  cag gca ctg Gln Ala Leu  gat gcc aag Asp Ala Lys 275  gag tac tgt Glu Tyr Cys 290  agc cag cct ser Gln Pro 305  tcc cac ccc ser His Pro  gga gag cgg Gly Glu Arg  ctc tct gcc Leu Ser Ala 355  acg gtg atc Thr Val Ile 370  cag aaa ttt Gln Lys Phe 385  gac act tac Asp Thr Tyr  tcc cgc tgt	ggc acg cac agc Gly Thr His Ser 225  tcc atg atc ctg Ser Met Ile Leu  cag gca ctg ggc Gln Ala Leu Gly 260  gat gcc aag ccc Asp Ala Lys Pro 275  gag tac tgt gat Glu Tyr Cys Asp 290  agc cag cct cag Ser Gln Pro Gln 305  tcc cac ccc tgg Ser His Pro Trp  gga gag cgg ttc Gly Glu Arg Phe 340  ctc tct gcc gcc Leu Ser Ala Ala 355  acg gtg atc ttg Thr Val Ile Leu 370  cag aaa ttt gaa Gln Lys Phe Glu 385  gac act tac gac Asp Thr Tyr Asp	ggc acg cac agc ctc Gly Thr His Ser Leu 225  tcc atg atc ctg ata Ser Met Ile Leu Ile 245  cag gca ctg ggc ctg Gln Ala Leu Gly Leu 260  gat gcc aag ccc tgg Asp Ala Lys Pro Trp 275  gag tac tgt gat gtg Glu Tyr Cys Asp Val 290  agc cag cct cag ttt Ser Gln Pro Gln Phe 305  tcc cac ccc tgg cag Ser His Pro Trp Gln 325  gga gag cgg ttc ctg Gly Glu Arg Phe Leu 340  ctc tct gcc gcc cac Leu Ser Ala Ala His 355  acg gtg atc ttg gag gcg Thr Val Ile Leu Gly 370  cag aaa ttt gaa gtc Gln Lys Phe Glu Val 385  gac act tac gac aat Asp Thr Tyr Asp Asn 405  tcc cgc tgt gcc cag Ser Arg Cys Ala Gln	ggc acg cac agc ctc acc Gly Thr His Ser Leu Thr 230  tcc atg atc ctg ata ggc Ser Met Ile Leu Ile Gly 245  cag gca ctg ggc ctg ggc Gln Ala Leu Gly Leu Gly 260  gat gcc aag ccc tgg tgc Asp Ala Lys Pro Trp Cys 275  gag tac tgt gat gtg ccc Glu Tyr Cys Asp Val Pro 290  agc cag cct cag ttt cgc Ser Gln Pro Gln Phe Arg 305  tcc cac ccc tgg cag gct Ser His Pro Trp Gln Ala 325  gga gag cgg ttc ctg tgc Gly Glu Arg Phe Leu Cys 340  ctc tct gcc gcc cac tgc Leu Ser Ala Ala His Cys 355  acg gtg atc ttg ggc aga Thr Val Ile Leu Gly Arg 370  cag aaa ttt gaa gtc gaa Gln Lys Phe Glu Val Glu 385  tcc cgc tgt gcc cag gag Ser Arg Cys Ala Gln Glu  tcc cgc tgt gcc cag gag Ser Arg Cys Ala Gln Glu	ggc acg cac agc ctc acc gag Gly Thr His Ser Leu Thr Glu 225  tcc atg atc ctg ata ggc aag Ser Met Ile Leu Ile Gly Lys 245  cag gca ctg ggc ctg ggc aaa Gln Ala Leu Gly Leu Gly Lys 260  gat gcc aag ccc tgg tgc cac Asp Ala Lys Pro Trp Cys His 275  gag tac tgt gat gtg ccc tcc Glu Tyr Cys Asp Val Pro Ser 290  agc cag cct cag ttt cgc atc Ser Gln Pro Gln Phe Arg Ile 305  dcc cac ccc tgg cag gct gcc Ser His Pro Trp Gln Ala Ala 325  gga gag cgg ttc ctg tgc ggg Gly Glu Arg Phe Leu Cys Gly 340  ctc tct gcc gcc cac tgc ttc Leu Ser Ala Ala Ala His Cys Phe 355  acg gtg atc ttg gag ggc aga aca Thr Val Ile Leu Gly Arg Thr 370  cag aaa ttt gaa gtc gaa aaa Gln Lys Phe Glu Val Glu Lys 385  tcc cgc tgt gcc cag gag agc ser Arg Cys Ala Gln Glu Ser	ggc acg cac agc ctc acc gag tcg           Gly Thr His Ser Leu Thr Glu Ser           225         Leu Thr Glu Ser           225         Ecc atg atc ctg ata ggc aag gtt           tcc atg atc ctg ggc ctg aaa cat Gln Ala Leu Gly Leu Gly Lys His         245           cag gca ctg ggc ctg ggc aaa cat Gln Ala Leu Gly Leu Gly Lys His         260           gat gcc aag ccc tgg tgc cac gtg         Asp Ala Lys Pro Trp Cys His Val 280           gag tac tgt gat gtg ccc tcc tgc         Glu Tyr Cys Asp Val Pro Ser Cys 295           agc cag cct cag ttt cgc atc aaa Ser Gln Pro Gln Phe Arg Ile Lys 305         310           tcc cac ccc tgg cag ggt gc atc Ser His Pro Trp Gln Ala Ala Ile 325         Ala Ala His Cys Gly Gly Gly 340           ctc tct gcc gcc cac tgc ttc cag Leu Ser Ala Ala His Cys Phe Gln 355         360           acg gtg atc ttg ggc aga aca tac Thr Val Ile Leu Gly Arg Thr Tyr 370         375           cag aaa ttt gaa gtc gaa aaa tac Gln Lys Phe Glu Val Glu Lys Tyr 375         390           gac act tac gac aat gac att gcg Asp Thr Tyr Asp Asn Asp Ile Ala 405         405	ggc acg cac age ctc acc gag tcg ggt Cly Thr His Ser Leu Thr Glu Ser Gly 225  tcc atg atc ctg ata ggc aag gtt tac Ser Met Ile Leu Ile Gly Lys Val Tyr 245  cag gca ctg ggc ctg ggc aaa cat aat Gln Ala Leu Gly Leu Gly Lys His Asn 260  gat gcc aag ccc tgg tgc cac gtg ctg Asp Ala Lys Pro Trp Cys His Val Leu 280  gag tac tgt gat gtg ccc tgc Cys Ser 295  agc cag cct cag ttt cgc atc aaa gga Ser Gln Pro Gln Phe Arg Ile Lys Gly 310  tcc cac ccc tgg cag gct gcc atc ttt Ser His Pro Trp Gln Ala Ala Ile Phe 325  gga gag cgg ttc ctg tgc ggg ggc ata Gly Glu Arg Phe Leu Cys Gly Gly Ile 340  ctc tct gcc gcc cac tgc tcc cag gag Gly Gly Ile 340  ctc tct gcc gcc cac tgc tc cag gag aca aca tac cgg Thr Val Ile Leu Gly Arg Thr Tyr Arg 370  cag aaa ttt gaa gtc gaa aaa tac att Gln Lys Phe Glu Val Glu Lys Tyr Ile 385  gac act tac gac aat gac att gcc tc Asp Thr Tyr Asp Asp Asp Asp Ile Ala Leu 405  tcc cgc tgt gcc cag gag agc agc gtg scr Arg Cys Ala Gln Glu Ser Ser Val	ggc acg cac agc ctc         acc gag tcg ggt gcc           Gly Thr His Ser Leu Thr Glu Ser Gly Ala           225           tcc atg atc ctg ata ggc aag gtt tac aca           Ser Met Ile Leu Ile Gly Lys Val Tyr Thr           245           cag gca ctg ggc ctg ggc aaa cat aat tac           Gln Ala Leu Gly Leu Gly Lys His Asn Tyr           260           gat gcc aag ccc tgg tgc cac gtg ctg aag           Asp Ala Lys Pro Trp Cys His Val Leu Lys           275           gag tac tgt gat gtg ccc tcc tgc tcc acc           Glu Tyr Cys Asp Val Pro Ser Cys Ser Thr           290           agc cag cct cag ttt cgc atc aca ggg ggg           Ser Gln Pro Gln Phe Arg Ile Lys Gly Gly           305           tcc cac ccc tgg cag gct gcc atc ttt gcc           Ser His Pro Trp Gln Ala Ala Ile Phe Ala           325           gga gag cgg ttc ctg tgc ggg ggc ata ctc           Gly Glu Arg Phe Leu Cys Gly Gly Gly Ile Leu           340           ctc tct gcc gcc cac tgc tcc acg ggg gga agg           Leu Ser Ala Ala His Cys Phe Gln Glu Arg           355           acg gtg atc ttg ggc aga aca tac cgg gtg           Thr Val Ile Leu Gly Arg Thr Tyr Arg Val           375           cag aaa ttt gaa gtc gaa aca tac att gtc           Gl	ggc acg cac         agc ctc         acc gag tcg ggt gcc         ctc           Gly Thr His         Ser Leu         Thr Glu         Ser Gly Ala         Ser           225         acc atg atc         ctg ata         ggc aag         gtt tac aca         gca           Ser Met         Ile         Leu         Gly         Lys         Val         Tyr         Thr         Ala           cag gca         ctg ggc         ctg ggc         aaa         cat         aat         tac         tgc           Gln         Ala         Leu         Gly         Lys         His         Asn         Tyr         Cys           gat         gcc         aag         ccc         tgtg         cag         gag         aag         aac           gat         tgc         aag         ccc         tgc         tgc         acc         tgc         acc         tgg         cag         tgc         acc         tgc         acc         tgg         dac         acc         tgg         acc         tgc         dac         acc         tgg         dac         acc         tgg         dac         acc         tgg         dac         acc         tgg         dac         acc         tgg	ggc acg cac agc ctc acc gag tcg ggt gcc tcc tcc atg atc ctg ata ggc aag gtt tac aca gca cag Ser Met Ile Leu Ile Gly Lys Val Tyr Thr Ala Gln 245  cag gca ctg ggc ctg ggc aaa cat aat tac tgc cgg Gln Ala Leu Gly Leu Gly Lys His Asn Tyr Cys Arg 265  gat gcc aag ccc tgg tgc cac gtg ctg aag acc cgc Asp Ala Lys Pro Trp Cys His Val Leu Lys Asn Arg 275  gag tac tgt gat gtg ccc tcc tgc tgc acc tgc ggc Glu Tyr Cys Asp Val Pro Ser Cys Ser Thr Cys Gly 295  agc cag cat cag ttt cga atc aaa gga ggg ctc ttc Ser Gln Pro Gln Phe Arg Ile Lys Gly Gly Leu Phe 305  tcc cac ccc tgg cag gct gcc atc ttt gcc aag cac cac Ser His Pro Trp Gln Ala Ala Ile Phe Ala Lys His 325  gga gad cag ctc ctg tcg ggc ggc atc ttt gcc aag cac Ser His Pro Trp Gln Ala Ala Ile Phe Ala Lys His 325  gga gad cgg ttc ctg tgc ggg ggc ata ctc atc agc Gly Glu Arg Phe Leu Cys Gly Gly Ile Leu Ile Ser 340  ctc tct gcc gcc cac tgc ttc cag gag agg ttt ccg Leu Ser Ala Ala His Cys Phe Gln Glu Arg Phe Pro 370  cac gaa atc ttg gac aga aca tac cag ggt gtc cct Thr Val Ile Leu Gly Arg Thr Tyr Arg Val Val Pro 380  cac aaa ttt gaa gtc gaa aaa tac att gtc cat aag Gln Lys Phe Glu Lys Tyr Ile Val His Lys 385  gac act tac gac aat gac att gcg ctg ctg ctg cag ctg Asp Thr Tyr Asp Asp Asp Ile Ala Leu Leu Gln Leu A05  ctc ccc tgt tgc cag gad agc agc gtg gtc cct Thr Val Ile Cag aaa aaa tac att gtc cat aag Gln Lys Phe Glu Cys Asp Thr Tyr Asp Asp Asp Ile Ala Leu Leu Gln Leu A05  ctc ccg tgt gcc cag gad agc agc gtg gtc cct Thr Tyr Asp Asp Asp Ile Ala Leu Leu Gln Leu A05  ctc ccg tgt gcc cag gad agc agc agc gtg gtc ctc ccc acc ccc tgc ttc cag aaa aaa tac att gcc cat aag Gln Lys Phe Glu Cys Asp Thr Tyr Asp Asp Asp Ile Ala Leu Leu Gln Leu A05  ctc ccg tgt gcc cag gad agc agc agc gtg gtc ccc acc ccc ccc tgc ctg cag ctg Asp Thr Tyr Asp Asp Ile Ala Leu Leu Gln Leu A05  ctc ccc ccc tgt gcc cag gad agc agc gcc gtg gtc ccc ccc ccc ccc ccc ccc c	ggc acg cac agc ctc acc gag tcg ggt gcc tcc tgc ctc atg atc atg atc ctg ata agg aaa cat aat tac tgc cgg aat gcc aag ccc tag ggc aaa cat aat tac tgc cgg aat gcc aag acc ctg ggc ctg ggc aaa cat aat tac tgc cgg aat acc at at a lys pro trp cys his pan try cys arg and acc at at at a ctg cag agg axis at a lys pro trp cys his pan try cys arg and acc at at at a ctg cag agg axis at a lys pro trp cys his pan try cys arg and acc at at at a ctg cag agg axis at a lys pro trp cys his pan try cys arg and acc at at at acc at at at a ctg cag agg axis at a lys pro trp cys his pan try cys and arg arg cag at a ctg aag aac cgc agg axis at a ctg and acc acc acc acc acc acc acc acc acc ac	ggc acg cac agc ctc acc gag tcg ggt gcc tcc tgc ctc cggly Thr His Ser Leu Thr Glu Ser Gly Ala Ser Cys Leu Pro 225  tcc atg atc ctg ata ggc aag gtt tac aca gca cag aac ccc Ser Met Ile Leu Ile Gly Lys Val Tyr Thr Ala Gln Asn Pro 250  cag gca ctg ggc ctg ggc aaa cat aat tac tgc cgg aat cct Gln Ala Leu Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro 260  gat gcc aag ccc tgg tgc cac gtg ctg aag aac cgc agg ctg Asp Ala Lys Pro Trp Cys His Val Leu Lys Asn Arg Arg Leu 285  gag tac tgt gat gtg ccc tcc tgc tcc acc tgc ggc ctg aga cgu Tyr Cys Asp Val Pro Ser Cys Ser Thr Cys Gly Leu Arg 290  agc cag cat cag ttt cgc atc aaa gga ggg ctc ttc gc gac ser Gln Pro Gln Phe Arg Ile Lys Gly Gly Leu Phe Ala Asp 315  tcc cac ccc tgg cag gct gcc atc ttt gcc aag cac agg agg Ser His Pro Trp Gln Ala Ala Ile Phe Ala Lys His Arg Arg 325  gga gag cgg ttc ctg tgc ggg ggc ata ctc acc agc agg agg Ser His Pro Trp Gln Ala Ala Ile Phe Ala Lys His Arg Arg 325  gga gag cgg ttc ctg tgc ggg ggc ata ctc acc agc tgc ggg gg	ggc acg cac agc ctc acc gag tcg ggt gcc tcc tcg ctc ccg tgg Gly Thr His Ser Leu Thr Glu Ser Gly Ala Ser Cys Leu Pro Trp 230  tcc atg atc ctg ata ggc aag gtt tac aca gca cag aac ccc agt Ser Met Ile Leu Ile Gly Lys Val Tyr Thr Ala Gln Asn Pro Ser 245  cag gca ctg ggc ctg ggc aaa cat aat tac tgc cgg aat cct gat Gln Ala Leu Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro Asp 260  gat gcc aag ccc tgg tgc cac gtg ctg aag aac cgc agg ctg acg Asp Ala Lys Pro Trp Cys His Val Leu Lys Asn Arg Arg Leu Thr 275  gag tac tgt gat gtg ccc tcc tgc tcc acc tgc ggc ctg aga cag Glu Tyr Cys Asp Val Pro Ser Cys Ser Thr Cys Gly Leu Arg Gln 290  agc cag cct cag ttt cgc atc aaa gga ggg ctc ttc gcc gac atc Ser Gln Pro Gln Phe Arg Ile Lys Gly Gly Leu Phe Ala Asp Ile 305  tcc cac ccc tgg cag gct gcc atc ttt gc aag cac agg agg tcg Ser His Pro Trp Gln Ala Ala Ile Phe Ala Lys His Arg Arg Ser 325  gga gag cgg ttc ctg tgc ggg ggc ata ctc atc acc agg agg tcg Gly Glu Arg Phe Leu Cys Gly Gly Ile Leu Ile Ser Ser Cys Trp 340  acc gcc cac ccc tgg cag aca tac ctc acc acc ccc tgc tgc Gly Gly Arg Phe Leu Cys Gly Gly Ile Leu Ile Ser Ser Cys Trp 340  acc gcd acc ttg ggc aga aca tac ctc acc acc ccc tgc tgc Gly Glu Arg Phe Leu Cys Gly Gly Ile Leu Ile Ser Ser Cys Trp 340  acc gcd acc ttg ggc aga aca tac ctc acc acc acc acc acc acc ac	ggc acg cac age ctc acc gag tcg ggt gcc tcc tgc ctc ccg tgg aat Gly Thr His Ser Leu Thr Glu Ser Gly Ala Ser Cys Leu Pro Trp Ann 225 235 235 240  tcc atg atc ctg ata ggc aag gtt tac aca gca cag aac ccc agt gcc Ser Met Ile Leu Ile Gly Lys Val Tyr Thr Ala Gln Asn Pro Ser Ala 255 255  cag gca ctg ggc ctg ggc aaa cat aat tac tgc cgg aat cct gat ggc Gln Ala Leu Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro Asp Gly 265 275  gat gcc aag ccc tgg tgc cac gtg ctg aag aac cgc agg ctg acg tgg Asp Ala Lys Pro Trp Cys His Val Leu Lys Asn Arg Arg Leu Thr Trp 280  gat tac tgt gat gtg ccc tcc tgc tcc acc tgc ggc ctg aga cag tac Glu Tyr Cys Asp Val Pro Ser Cys Ser Thr Cys Gly Leu Arg Gln Tyr 290  agc cag cct cag ttt cgc atc aag gag ggg ggg ctt tcc gc gc aat ccc gc gcc gag act acc gln Tyr 290  agc cag cct cag ttt cgc atc aag gag ggg ggg ctt tcc gc gac atc gcc Ser Gln Pro Gln Phe Arg Ile Lys Gly Gly Leu Phe Ala Asp Ile Ala 305  tcc cac ccc tgg cag gct gcc atc ttt gcc aag cac agg agg tcc ccc Ser His Pro Trp Gln Ala Ala Ile Phe Ala Lys His Arg Arg Ser Pro 325  gga gag cgg ttc ctg tgc ggg ggc ata ctc atc agc tcc tgc tgc gg ggc ctg aga ccc ser Gly Glu Arg Phe Leu Cys Gly Gly Ile Leu Ile Ser Ser Cys Trp Ile 340  ctc tct tgc gcc cac tgc ttc cag gag agg gtt ccc tcc tgc tcc acc tgc tgc ggc atc ctc tcc gc gag agg ff ccc tct tcc gcc gac atc gcc acc gc gc gc acc acc acc acc gg ggg g	ggc acg cac agc ctc acc ggs tcg ggt gcc tcc tgc ccc ccg tgg aat cly Thr His Ser Leu Thr Glu Ser Cly Ala Ser Cys Leu Pro Trp Asn 230 235 235 260 260 260 270 260 270 270 270 270 270 270 270 270 270 27

					gcc Ala						_			_	_		1392
					ctg Leu 470												1440
					gtc Val												1488
cgg -Arg					cag Gln			_		-		-	_				1536
	Gly				gtg Val		=		_		<del>-</del>	_		-			1584
			_		ggc Gly			_		_	_	_	_	-			1632
gtg Val 545									-								1680
cga Arg	_																1686
<210 <211 <212	)> 12 .> 11 !> DN	.58 IA	cial	Seç	nenc	:e									٠	-	
<222	.> si :> (1	.)	eptid . (6 . seq	9)	e of	the	: sur	fact	ant	prot	ein	В					
<220 <221 <222 <223	> CD > (7	6) .			e of	the	mat	ure	surf	acta	int p	rote	ein E	3			
	> CD > (3 > Co	13) ding	se	quen	ce (	of t	he	low	mol	ecul	ar v	veigl	nt t	:WO-0	chain	uroki	.nase-
plas		gen	acti	.vatc	r												•••
<220	· >											•			•	•	

<221> CDS

<222> (1141) ... (1158)

<223> Hexahistidin affinity tag

		gag Glu													48
		ggc Gly			_										96
		ctc Leu 35	Cys										ccc Pro	-	144
	_	gcg Ala					<del></del>		 _	_		<del>-</del>			192
		gcg Ala													240
atc		ctc Leu												ė	288
cgc		gtc Val									•				336
		ttt Phe 115													384
_	_	gga Gly													432
		agg Arg		_		 		_							480
		atc Ile			_	 		=			_				528
		cca Pro													576
		tcc Ser 195													624
_		cac His													672

		ttg ctg Leu Leu	Lys I											720
	tcc cgg Ser Arg	act ata Thr Ile							•					768
		ggc aca Gly Thr 260	Ser C		Ile									816
	_	tat cto Tyr Leu 275												864
		cac cgg His Arg										-		912
		aaa atg Lys Met	Leu C											960
		gga gac Gly Asp				Leu	-						•	1008
	atg act Met Thr	ttg act Leu Thr 340	Gly I		Ser									1056
•	gac aag Asp Lys													1104
	cgc agt Arg Ser 370	cac acc His Thr												1152
	cat cat His His 385													1158
•	<210> 13 <211> 11 <212> DN <213> Ar	L <b>4</b> 9	l Sequ	ence										
	<220> <221> si <222> (1 <223> Si	L) (	50)	of the	e urok	kina	se p	lasm	inog	en a	ctiv	ator		
· · · · · · · · · · · · · · · · · · ·	<220> <221> CD <222> (6		(894)									*		
·.	•											· ·		

<u> Barantan (na pagaman) na pagaman na pagaman na pagaman na pagaman na pagaman na pagaman na pagaman</u>

	_				eque:		of	the	low	mol	lecul	lar	weig	ht	two-	chain	uroki	inase-
	<22	1> C 2> (	895)		(11 quen	•	f th	e ma	ture	sur	fact	ant :	prot	ein	В			
	<22	1> C 2> (	1132		. (1 din	_	nity	tag		•								
	<40	0> 1	3															
•											Cys				gtg Val 15			48
					Ser										tta Leu			96
				Gly											att Ile			144
			Phe										Ala		atc Ile			192
															agc Ser		·	240
															gat Asp 95			288
				Glu		Tyr	Ile	Val	Tyr	Leu	Gly	Arg	Ser	Arg	ctt Leu			336
															atc Ile			384
	_														att Ile	_		432
					Arg										tcc Ser			480
															cag Gln 175		•	528

										acc Thr		576
			Pro							att Ile		624
٠		Glu								acc Thr		672
										tgc Cys		720
										atg Met 255		768
						_	 _	_	 _	gac Asp	_	816
										cgc Arg		864
										ctc Leu		912
										atg Met		960
										gtg Val 335		1008
										tac Tyr		1056
										ctg. Leu	gtc Val	1104
					tgc Cys 375	_						1149

<sup>&</sup>lt;210> 14

<sup>&</sup>lt;211> 381 <212> PRT

<sup>&</sup>lt;213> Homo sapiens

<221> PEPTIDE

<222> (1) ... (381)

<223> Surfactant protein B precursor

<400> 14

Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr 1 10 15

Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys
20 25 30

Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln 35 40 45

Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly 50 60

Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn 65 70 75 80

Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu 85 90 95

Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys 100 105 110

Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln 115 120 125

Asn Gln Thr Asp Ser Asn Gly Ile Cys Met His Leu Gly Leu Cys Lys 130 135 140

Ser Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu 145 150 155 160

Pro Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu 165 170 175

Val Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His 180 185 190

Thr Gln Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro Leu Pro Tyr Cys 195 200 205

Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro Lys 210 215 220

Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val Pro Leu 225 230 235 240

Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile 245 250 255

Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg 260 265 270

Leu Val Leu Arg Cys Ser Met Asp Asp Ser Ala Gly Pro Arg Ser Pro

Thr Gly Glu Trp Leu Pro Arg Asp Ser Glu Cys His Leu Cys Met Ser 290 295 300

285

Val Thr Gln Ala Gly Asn Ser Ser Glu Gln Ala Ile Pro Gln Ala 305 310 315 320

Met Leu Gln Ala Cys Val Gly Ser Trp Leu Asp Arg Glu Lys Cys Lys 325 330 335

Gln Phe Val Glu Gln His Thr Pro Gln Leu Leu Thr Leu Val Pro Arg 340 345 350

Gly Trp Asp Ala His Thr Thr Cys Gln Ala Leu Gly Val Cys Gly Thr 355 360 365

Met Ser Ser Pro Leu Gln Cys Ile His Ser Pro Asp Leu 370 380

<210> 15

<211> 279

<212> PRT

<213> Homo sapiens

<220>

<221> PEPTIDE

<222> (1) ... (279)

<223> Surfactant protein B precursor lacking the C-terminal propeptide

<400> 15

Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr 1 5 10

Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys
20 25 30

Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln 35 40 45

Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly 50 55 60

Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn 65 70 75 80

Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu
85 90 95

Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys
100 105 110

Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln 115 120 125

Asn Gln Thr Asp Ser Asn Gly Ile Cys Met His Leu Gly Leu Cys Lys 130 135 140

Ser Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu 145 150 155 160

Pro Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu 165 170 175

Val Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His . 180 185 190

Thr Gln Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro Leu Pro Tyr Cys 195 200 205

Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro Lys 210 215 220

Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val Pro Leu 225 230 235 240

Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile 245 250 255

Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg 260 265 270

Leu Val Leu Arg Cys Ser Met 275

<210> 16

<211> 79

<212> PRT

<213> Homo sapiens

<220>

<221> PEPTIDE

<222> (1) ... (79)

<223> Mature surfactant protein B

<400> 16

Phe Pro Ile Pro Leu Pro Tyr Cys Trp Leu Cys Arg Ala Leu Ile Lys
1 5 10 15

Arg Ile Gln Ala Met Ile Pro Lys Gly Ala Leu Ala Val Ala Val Ala 20 25 30

Gln Val Cys Arg Val Val Pro Leu Val Ala Gly Gly Ile Cys Gln Cys 35 40 45

Leu Ala Glu Arg Tyr Ser Val Ile Leu Leu Asp Thr Leu Leu Gly Arg
50 55 60

Met Leu Pro Gln Leu Val Cys Arg Leu Val Leu Arg Cys Ser Met 65 70 75

<210> 17

<211> 431

<212> PRT

<213> Homo sapiens

<220>

<221> PEPTIDE

<222> (1) ... (431)

<223> Single-chain urokinase-plasminogen activator

<400> 17

Met Arg Ala Leu Leu Ala Arg Leu Leu Leu Cys Val Leu Val Val Ser 1 5 10 15

Asp Ser Lys Gly Ser Asn Glu Leu His Gln Val Pro Ser Asn Cys Asp 20 25 30

Cys Leu Asn Gly Gly Thr Cys Val Ser Asn Lys Tyr Phe Ser Asn Ile 35 40 45

His Trp Cys Asn Cys Pro Lys Lys Phe Gly Gly Gln His Cys Glu Ile
50 55 60

Asp Lys Ser Lys Thr Cys Tyr Glu Gly Asn Gly His Phe Tyr Arg Gly 65 70 . 75 80

Lys Ala Ser Thr Asp Thr Met Gly Arg Pro Cys Leu Pro Trp Asn Ser 85 90 95

Ala Thr Val Leu Gln Gln Thr Tyr His Ala His Arg Ser Asp Ala Leu 100 105 110

Gln Leu Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro Asp Asn Arg 115 120 125

Arg Arg Pro Trp Cys Tyr Val Gln Val Gly Leu Lys Pro Leu Val Gln 130 135 140

Glu Cys Met Val His Asp Cys Ala Asp Gly Lys Lys Pro Ser Ser Pro 145 150 155 160

Pro Glu Glu Leu Lys Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg 165 170 175

Phe Lys Ile Ile Gly Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp
180 185 190

Phe Ala Ala Ile Tyr Arg Arg His Arg Gly Gly Ser Val Thr Tyr Val 195 200 205

Cys Gly Gly Ser Leu Ile Ser Pro Cys Trp Val Ile Ser Ala Thr His 210 220

Cys Phe Ile Asp Tyr Pro Lys Lys Glu Asp Tyr Ile Val Tyr Leu Gly 225 230 235 240

Arg Ser Arg Leu Asn Ser Asn Thr Gln Gly Glu Met Lys Phe Glu Val 245 250 255

Glu Asn Leu Ile Leu His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His

His Asn Asp Ile Ala Leu Leu Lys Ile Arg Ser Lys Glu Gly Arg Cys 275 280 285

Ala Gln Pro Ser Arg Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr 290 295 300

Asn Asp Pro Gln Phe Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys 305 310 315 320

Glu Asn Ser Thr Asp Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val 325 330 335

Val Lys Leu Ile Ser His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly 340 345 350

Ser Glu Val Thr Thr Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys 355 360 365

Thr Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu 370 375 380

Gln Gly Arg Met Thr Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys 385 390 395 400

Ala Leu Lys Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu
405 410 415

Pro Trp Ile Arg Ser His Thr Lys Glu Gln Asn Gly Leu Ala Leu 420 425 430

<210> 18

<211> 276

<212> PRT

<213> Homo sapiens

<220>

<221> PEPTIDE

<222> (1) ... (276)

<223> Low molecular weight two-chain urokinase-plasminogen activator

. <400> 18

Lys Pro Ser Ser Pro Pro Glu Glu Leu Lys Phe Gln Cys Gly Gln Lys 1 5 10 15

Thr Leu Arg Pro Arg Phe Lys Ile Ile Gly Gly Glu Phe Thr Thr Ile 20 25 30

Glu Asn Gln Pro Trp Phe Ala Ala Ile Tyr Arg Arg His Arg Gly Gly
35 40 45

Ser Val Thr Tyr Val Cys Gly Gly Ser Leu Ile Ser Pro Cys Trp Val 50 60

Ile Ser Ala Thr His Cys Phe Ile Asp Tyr Pro Lys Lys Glu Asp Tyr 65 75 80

Ile Val Tyr Leu Gly Arg Ser Arg Leu Asn Ser Asn Thr Gln Gly Glu 85 90 Met Lys Phe Glu Val Glu Asn Leu Ile Leu His Lys Asp Tyr Ser Ala 100 105 110 Asp Thr Leu Ala His His Asn Asp Ile Ala Leu Leu Lys Ile Arg Ser 115 125 120 Lys Glu Gly Arg Cys Ala Gln Pro Ser Arg Thr Ile Gln Thr Ile Cys 130 135 140 Leu Pro Ser Met Tyr Asn Asp Pro Gln Phe Gly Thr Ser Cys Glu Ile 145 160 150 155 Thr Gly Phe Gly Lys Glu Asn Ser Thr Asp Tyr Leu Tyr Pro Glu Gln 175 165 170 Leu Lys Met Thr Val Val Lys Leu Ile Ser His Arg Glu Cys Gln Gln 180 185 190 Pro His Tyr Tyr Gly Ser Glu Val Thr Thr Lys Met Leu Cys Ala Ala 195 200 205 Asp Pro Gln Trp Lys Thr Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro 210 215 220 Leu Val Cys Ser Leu Gln Gly Arg Met Thr Leu Thr Gly Ile Val Ser 225 230 235 240 Trp Gly Arg Gly Cys Ala Leu Lys Asp Lys Pro Gly Val Tyr Thr Arg 245 250 255 Val Ser His Phe Leu Pro Trp Ile Arg Ser His Thr Lys Glu Gln Asn 260 265 Gly Leu Ala Leu 275

<210> 19

<211> 557

<212> PRT

<213> Artificial Sequence

<220>

<221> PEPTIDE

<222> (1) ... (279)

<223> Surfactant protein B precursor lacking the C-terminal propeptide

· <220>

<221> PEPTIDE

<222> (282) ... (577)

<223> Low molecular weight two-chain urokinase-plasminogen activator

<400> 19

Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Pro Thr

Leu	Cys	Gly	Pro	Gly	Thr	Ala	Ala	Trp	Thr	Thr	Ser	Ser	Leu	Ala	Cys
٠			20					25					30		

10

Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln 35 40 45

Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly 50 55 60

Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn 65 70 75 80

Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu
85 90 95

Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys
100 105 110

Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln
115 120 125

Asn Gln Thr Asp Ser Asn Gly Ile Cys Met His Leu Gly Leu Cys Lys
130 135 140

Ser Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu 145 150 155 160

Pro Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu 165 170 175

Val Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His 180 185 190

Thr Gln Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro Leu Pro Tyr Cys 195 200 205

Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro Lys 210 220

Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val Pro Leu 225 230 235 240

Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile 245 250 255

Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg 260 265 270

Leu Val Leu Arg Cys Ser Met Lys Leu Lys Pro Ser Ser Pro Pro Glu 275 280 285

Glu Leu Lys Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg Phe Lys 290 295 300

Ile Ile Gly Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp Phe Ala 305 310 315 320

```
Ala Ile Tyr Arg Arg His Arg Gly Gly Ser Val Thr Tyr Val Cys Gly
                 325
                                      330
                                                          335
Gly Ser Leu Ile Ser Pro Cys Trp Val Ile Ser Ala Thr His Cys Phe
             340
                                  345
                                                      350
Ile Asp Tyr Pro Lys Lys Glu Asp Tyr Ile Val Tyr Leu Gly Arg Ser
         355
                             360
                                                  365
Arg Leu Asn Ser Asn Thr Gln Gly Glu Met Lys Phe Glu Val Glu Asn
     370
                         375
                                              380
Leu Ile Leu His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His His Asn
385
                     390
                                          395
                                                               400
Asp Ile Ala Leu Leu Lys Ile Arg Ser. Lys Glu Gly Arg Cys Ala Gln
                 405
                                      410
                                                          415
Pro Ser Arg Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr Asn Asp
             420
                                 425
                                                      430
Pro Gln Phe Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys Glu Asn
        435
                             440
                                                  445
Ser Thr Asp Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val Val Lys
    450
                         455
                                              460
Leu Ile Ser His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly Ser Glu
465
                     470
                                          475
                                                              480
Val Thr Thr Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys Thr Asp
                 485
                                      490
                                                          495
Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu Gln Gly
             500
                                                      510
                                 505
Arg Met Thr Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys Ala Leu
        515
                             520
                                                  525
Lys Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu Pro Trp
    530
                         535
                                              540
Ile Arg Ser His Thr Lys Glu Gln Asn Gly Leu Ala Leu
.545
                     550
                                          555
<210> 20
<211> 558
<212> PRT
<213> Artificial Sequence
<220>
<221> PEPTIDE
```

<223> Surfactant protein B precursor lacking the C-terminal propeptide .

<222> (1) ... (279)

<222> (283) ... (558)

<221> PEPTIDE

<220>

<223> Low molecular weight two-chain urokinase-plasminogen activator <400> 20

Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr 1 5 10 15

Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys
20 25 30

Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln 35 40 45

Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly 50 55 60

Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn 65 70 75 80

Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu
85 90 95

Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys
100 105 110

Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln
115 120 125

Asn Gln Thr Asp Ser Asn Gly Ile Cys Met His Leu Gly Leu Cys Lys
130 135 140

Ser Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu 145 150 150

Pro Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu 165 170 175

Val Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His 180 185 190

Thr Gln Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro Leu Pro Tyr Cys 195 200 205

Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro Lys 210 225 220

Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val Pro Leu 225 230 235 240

Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile 245 250 255

Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg 260 265 270

Leu Val Leu Arg Cys Ser Met Gln Ile Ser Lys Pro Ser Ser Pro Pro 275 280 285

Glu Glu Leu Lys Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg Phe

Lys Ile Ile Gly Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp Phe 305 310 315 320

Ala Ala Ile Tyr Arg Arg His Arg Gly Gly Ser Val Thr Tyr Val Cys
325 330 335

Gly Gly Ser Leu Ile Ser Pro Cys Trp Val Ile Ser Ala Thr His Cys 340 345 350

Phe Ile Asp Tyr Pro Lys Lys Glu Asp Tyr Ile Val Tyr Leu Gly Arg 355 360 365

Ser Arg Leu Asn Ser Asn Thr Gln Gly Glu Met Lys Phe Glu Val Glu 370 380

Asn Leu Ile Leu His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His His 385 390 395 400

Asn Asp Ile Ala Leu Leu Lys Ile Arg Ser Lys Glu Gly Arg Cys Ala 405 410 415

Gln Pro Ser Arg Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr Asn 420 425 430

Asp Pro Gln Phe Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys Glu
435 440 445

Asn Ser Thr Asp Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val Val 450 455 460

Lys Leu Ile Ser His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly Ser 465 470 475 480

Glu Val Thr Thr Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys Thr 485 490 495

Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu Gln 500 505 510

Gly Arg Met Thr Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys Ala 515 520 525

Leu Lys Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu Pro 530 540

Trp Ile Arg Ser His Thr Lys Glu Gln Asn Gly Leu Ala Leu 545 550 555

<210> 21

<211> 197

<212> PRT

<213> Homo sapiens

<220>

<221> PEPTIDE

<222> (1) ... (197)

<223> Surfactant protein C precursor

<400> 21

Met Asp Val Gly Ser Lys Glu Val Leu Met Glu Ser Pro Pro Asp Tyr 1 5 10 15

Ser Ala Ala Pro Arg Gly Arg Phe Gly Ile Pro Cys Cys Pro Val His 20 25 30

Leu Lys Arg Leu Leu Ile Val Val Val Val Val Leu Ile Val Val Val 35 40 45

Val Ile Val Gly Ala Leu Leu Met Gly Leu His Met Ser Gln Lys His 50 55 60

Thr Glu Met Val Leu Glu Met Ser Ile Gly Ala Pro Glu Ala Gln Gln 65 70 75 80

Arg Leu Ala Leu Ser Glu His Leu Val Thr Thr Ala Thr Phe Ser Ile 85 90 95

Gly Ser Thr Gly Leu Val Val Tyr Asp Tyr Gln Gln Leu Leu Ile Ala 100 105 110

Tyr Lys Pro Ala Pro Gly Thr Cys Cys Tyr Ile Met Lys Ile Ala Pro 115 120 125

Glu Ser Ile Pro Ser Leu Glu Ala Leu Thr Arg Lys Val His Asn Phe 130 135 140

Gln Met Glu Cys Ser Leu Gln Ala Lys Pro Ala Val Pro Thr Ser Lys 145 150 155 160

Leu Gly Gln Ala Glu Gly Arg Asp Ala Gly Ser Ala Pro Ser Gly Gly 165 170 175

Asp Pro Ala Phe Leu Gly Met Ala Val Ser Thr Leu Cys Gly Glu Val 180 185 190 .

Pro Leu Tyr Tyr Ile 195

<210> 22

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> PEPTIDE

<222> (1) ... (58)

<223> Surfactant protein C precursor lacking the C-terminal propeptide

<400> 22

Met Asp Val Gly Ser Lys Glu Val Leu Met Glu Ser Pro Pro Asp Tyr 1 5 10 15

Ser Ala Ala Pro Arg Gly Arg Phe Gly Ile Pro Cys Cys Pro Val His 20 25 30 Leu Lys Arg Leu Leu Ile Val Val Val Val Val Leu Ile Val Val 35 40 45 Val Ile Val Gly Ala Leu Leu Met Gly Leu 50 55 <210> 23 <211> 35 <212> PRT <213> Homo sapiens <220> <221> PEPTIDE <222> (1) ... (35) <223> Mature surfactant protein C <400> 23 Phe Gly Ile Pro Cys Cys Pro Val His Leu Lys Arg Leu Leu Ile Val 15 10 'Val Val Val Val Leu Ile Val Val Val Ile Val Gly Ala Leu Leu 20 25 30 Met Gly Leu 35 <210> 24 <211> 562 <212> DNA <213> Homo sapiens <220> <221> PEPTIDE <222> (1) ... (562) <223> Tissue-plasminogen activator <400> 24 Met Asp Ala Met Lys Arg Gly Leu Cys Cys Val Leu Leu Leu Cys Gly 15 10 Ala Val Phe Val Ser Pro Ser Gln Glu Ile His Ala Arg Phe Arg Arg 20 25 30 Gly Ala Arg Ser Tyr Gln Val Ile Cys Arg Asp Glu Lys Thr Gln Met 35 Ile Tyr Gln Gln His Gln Ser Trp Leu Arg Pro Val Leu Arg Ser Asn 50 55 60 Arg Val Glu Tyr Cys Trp Cys Asn Ser Gly Arg Ala Gln Cys His Ser

80

65

70

Val Pro Val Lys Ser Cys Ser Glu Pro Arg Cys Phe Asn Gly Gly Thr Cys Gln Gln Ala Leu Tyr Phe Ser Asp Phe Val Cys Gln Cys Pro Glu Gly Phe Ala Gly Lys Cys Cys Glu Ile Asp Thr Arg Ala Thr Cys Tyr Glu Asp Gln Gly Ile Ser Tyr Arg Gly Thr Trp Ser Thr Ala Glu Ser Gly Ala Glu Cys Thr Asn Trp Asn Ser Ser Ala Leu Ala Gln Lys Pro Tyr Ser Gly Arg Arg Pro Asp Ala Ile Arg Leu Gly Leu Gly Asn His Asn Tyr Cys Arg Asn Pro Asp Arg Asp Ser Lys Pro Trp Cys Tyr Val Phe Lys Ala Gly Lys Tyr Ser Ser Glu Phe Cys Ser Thr Pro Ala Cys Ser Glu Gly Asn Ser Asp Cys Tyr Phe Gly Asn Gly Ser Ala Tyr Arg Gly Thr His Ser Leu Thr Glu Ser Gly Ala Ser Cys Leu Pro Trp Asn Ser Met Ile Leu Ile Gly Lys Val Tyr Thr Ala Gln Asn Pro Ser Ala Gln Ala Leu Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro Asp Gly . 270 Asp Ala Lys Pro Trp Cys His Val Leu Lys Asn Arg Arg Leu Thr Trp Glu Tyr Cys Asp Val Pro Ser Cys Ser Thr Cys Gly Leu Arg Gln Tyr Ser Gln Pro Gln Phe Arg Ile Lys Gly Gly Leu Phe Ala Asp Ile Ala Ser His Pro Trp Gln Ala Ala Ile Phe Ala Lys His Arg Arg Ser Pro Gly Glu Arg Phe Leu Cys Gly Gly Ile Leu Ile Ser Ser Cys Trp Ile Leu Ser Ala Ala His Cys Phe Gln Glu Arg Phe Pro Pro His His Leu Thr Val Ile Leu Gly Arg Thr Tyr Arg Val Val Pro Gly Glu Glu Gln Lys Phe Glu Val Glu Lys Tyr Ile Val His Lys Glu Phe Asp Asp

```
405
                                      410
                                                           415
 Ser Arg Cys Ala Gln Glu Ser Ser Val Val Arg Thr Val Cys Leu Pro
              420
                                  425
                                                       430
 Pro Ala Asp Leu Gln Leu Pro Asp Trp Thr Glu Cys Glu Leu Ser Gly
         435
                              440
                                                   445
 Tyr Gly Lys His Glu Ala Leu Ser Pro Phe Tyr Ser Glu Arg Leu Lys
     450
                          455
                                               460
 Glu Ala His Val Arg Leu Tyr Pro Ser Ser Arg Cys Thr Ser Gln His
 465
                                                               480
                      470
                                          475
 Leu Leu Asn Arg Thr Val Thr Asp Asn Met Leu Cys Ala Gly Asp Thr
                  485
                                      490
                                                           495
 Arg Ser Gly Gly Pro Gln Ala Asn Leu His Asp Ala Cys Gln Gly Asp
             500
                                  505
                                                       510
 Ser Gly Gly Pro Leu Val Cys Leu Asn Asp Gly Arg Met Thr Leu Val
         515
                              520
                                                   525
 Gly Ile Ile Ser Trp Gly Leu Gly Cys Gly Gln Lys Asp Val Pro Gly
     530
                          535
                                               540
 Val Tyr Thr Lys Val Thr Asn Tyr Leu Asp Trp Ile Arg Asp Asn Met
                      550
                                                               560
 545
                                          555
 Arg Pro
 .<210> 25
<211> 386
 <212> PRT
 <213> Artificial Sequence
 <220>
 <221> SIGNAL
 <222> (1) ... (23)
 <223> Signal sequence of the surfactant protein B
 <220>
 <221> PEPTIDE
 <222> (26) ... (104)
 <223> Mature surfactant protein B
 <220>
 <221> PEPTIDE
 <222> (105) ... (380)
 <223> Low molecular weight two-chain urokinase-plasminogen activator
 <220>
 <221> PEPTIDE
 <222> (381) ... (386)
```

<223> Hexahistidin affinity tag

Asp Thr Tyr Asp Asn Asp Ile Ala Leu Leu Gln Leu Lys Ser Asp Ser

Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr
1 5 10 15

Leu Cys Gly Pro Gly Thr Ala Ala Trp Phe Pro Ile Pro Leu Pro Tyr 20 25 30

Cys Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro 35 40 45

Lys Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val Pro
50 55 60

Leu Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val 65 70 75 80

Ile Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys 85 90 95

Arg Leu Val Leu Arg Cys Ser Met Lys Pro Ser Ser Pro Pro Glu Glu
100 105 110

Leu Lys Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg Phe Lys Ile 115 120 125

Ile Gly Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp Phe Ala Ala 130 135 140

Ile Tyr Arg Arg His Arg Gly Gly Ser Val Thr Tyr Val Cys Gly Gly 145 150 155 160

Ser Leu Ile Ser Pro Cys Trp Val Ile Ser Ala Thr His Cys Phe Ile 165 170 175

Asp Tyr Pro Lys Lys Glu Asp Tyr Ile Val Tyr Leu Gly Arg Ser Arg 180 185 190

Leu Asn Ser Asn Thr Gln Gly Glu Met Lys Phe Glu Val Glu Asn Leu 195 200 205

Ile Leu His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His His Asn Asp 210 220

Ile Ala Leu Leu Lys Ile Arg Ser Lys Glu Gly Arg Cys Ala Gln Pro 225 230 235 240

Ser Arg Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr Asn Asp Pro 245 250 255

Gln Phe Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys Glu Asn Ser 260 265 270

Thr Asp Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val Val Lys Leu 275 280 285

Ile Ser His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly Ser Glu Val 290 295 300

```
Thr Thr Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys Thr Asp Ser
305
                     310
                                         315
                                                              320
Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu Gln Gly Arg
                 325
                                     330
                                                          335
Met Thr Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys Ala Leu Lys
             340
                                 345
                                                      350
Asp Lys Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu Pro Trp Ile
         355
                             360
                                                 365
Arg Ser His Thr Lys Glu Gln Asn Gly Leu Ala Leu His His His
     370
                         375
                                              380
His His
385
<210> 26
<211> 383
<212> PRT
<213> Artificial Sequence
<220>
<221> SIGNAL
<222> (1) ... (20)
<223> Signal sequence of the urokinase plasminogen activator
<220>
<221> PEPTIDE
<222> (23) ... (298)
<223> Low molecular weight two-chain urokinase-plasminogen activator
<220>
<221> PEPTIDE
<222> (299) ... (377)
<223> Coding sequence of the mature surfactant protein B
<220>
<221> PEPTIDE ·
<222> (378) ... (383)
<223> Hexahistidin affinity tag
<400> 26 .
Met Arg Ala Leu Leu Ala Arg Leu Leu Cys Val Leu Val Val Ser
  1
                                                           15
                                      10
Asp Ser Lys Gly Ser Asn Lys Pro Ser Ser Pro Pro Glu Glu Leu Lys
                                  25
             20
                                                      30
Phe Gln Cys Gly Gln Lys Thr Leu Arg Pro Arg Phe Lys Ile Ile Gly
         35
                              40
                                                  45
Gly Glu Phe Thr Thr Ile Glu Asn Gln Pro Trp Phe Ala Ala Ile Tyr
     50
                          55
                                              60
```

Arg Arg His Arg Gly Gly Ser Val Thr Tyr Val Cys Gly Gly Ser Leu

Ile Ser Pro Cys Trp Val Ile Ser Ala Thr His Cys Phe Ile Asp Tyr 85 90 95

Pro Lys Lys Glu Asp Tyr Ile Val Tyr Leu Gly Arg Ser Arg Leu Asn 100 105 110

Ser Asn Thr Gln Gly Glu Met Lys Phe Glu Val Glu Asn Leu Ile Leu 115 120 125

His Lys Asp Tyr Ser Ala Asp Thr Leu Ala His His Asn Asp Ile Ala 130 135 140

Leu Leu Lys Ile Arg Ser Lys Glu Gly Arg Cys Ala Gln Pro Ser Arg 145 150 150

Thr Ile Gln Thr Ile Cys Leu Pro Ser Met Tyr Asn Asp Pro Gln Phe 165 170 175

Gly Thr Ser Cys Glu Ile Thr Gly Phe Gly Lys Glu Asn Ser Thr Asp 180 185 190

Tyr Leu Tyr Pro Glu Gln Leu Lys Met Thr Val Val Lys Leu Ile Ser 195 200 205

His Arg Glu Cys Gln Gln Pro His Tyr Tyr Gly Ser Glu Val Thr Thr 210 215 220

Lys Met Leu Cys Ala Ala Asp Pro Gln Trp Lys Thr Asp Ser Cys Gln 225 230 235 240

Gly Asp Ser Gly Gly Pro Leu Val Cys Ser Leu Gln Gly Arg Met Thr 245 250 255

Leu Thr Gly Ile Val Ser Trp Gly Arg Gly Cys Ala Leu Lys Asp Lys 260 265 270

Pro Gly Val Tyr Thr Arg Val Ser His Phe Leu Pro Trp Ile Arg Ser 275 280 285

His Thr Lys Glu Gln Asn Gly Leu Ala Leu Phe Pro Ile Pro Leu Pro 290 295 300

Tyr Cys Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile 305 310 315 320

Pro Lys Gly Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val 325 330 335

Pro Leu Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser 340 345 350

Val Ile Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val 355 360 365

Cys Arg Leu Val Leu Arg Cys Ser Met His His His His His His 370 380

# This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

# BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

BLACK BORDERS
☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
☐ FADED TEXT OR DRAWING
☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
☐ SKEWED/SLANTED IMAGES
☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
☐ GRAY SCALE DOCUMENTS
TINES OR MARKS ON ORIGINAL DOCUMENT
TREFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
□ other:

# IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.